MANITOBA HEALTH STATISTICAL UPDATE on HIV and AIDS

Report to December 31, 2011

Manitoba

Epidemiology and Surveillance
Public Health Branch

MANITOBA HEALTH STATISTICAL UPDATE: HIV and AIDS to December 31, 2011

INTRODUCTION

Manitoba Health is pleased to provide the 2012 Statistical Update: HIV and AIDS Report. This report is intended to provide HIV and AIDS surveillance information in Manitoba for new cases reported to the Public Health Surveillance Unit within Manitoba Health up to December 31, 2011. The 2011 HIV data presented here includes an examination by:

- Age and Sex Distribution,
- Geographic Region,
- Ethnicity, and
- Risk Exposure Category (Primary Mode of Transmission).

The historical statistical data tables have been included in the appendices at the end of this report (Appendix C and Appendix D). The analysis of AIDS data are limited due to the small number of cases reported in recent years; however aggregate data tables are presented.

Manitoba Health would like to acknowledge the important efforts of public health professionals and health care providers across the province involved in the interview of new cases and reporting case-based surveillance information to the provincial surveillance system. Without these continued efforts this report would not be possible.

Notes Regarding the Interpretation of HIV Data

- Case definition: in this report, a new HIV case is defined as an individual with a positive HIV antibody test reported for the first time, to the Public Health Surveillance System, Surveillance & Epidemiology Unit at Manitoba Health. This includes individuals who may have been previously tested and diagnosed in another province or country outside of Manitoba. These cases are considered "new to Manitoba" and are monitored as there may be impacts on use of health programs and services within Manitoba.
- The number of new HIV cases reported may not be a reflection of the true number of new HIV infections per year (i.e. incidence) in the Manitoba population. It is also possible for an individual to be tested with a non-nominal identifier and use nominal testing for a subsequent test. In this case, linkage of results can only be done when client consent is provided. In addition, as noted above, cases that have tested positive in another province or country may also reported to the Public Health Surveillance System as new cases.
- Changes in the number of HIV positive individuals as well as observed trends must be interpreted with caution. There are a number of factors which may contribute to these changes, for example, changes in testing or reporting patterns among care providers.
- Information about ethnicity and risk exposure categories are self-reported by the individual during follow-up interview by health care provider or public health nurse. These can be subject to a degree of bias leading to possible under-reporting (or alternatively, over-reporting) of factors which may differ from year-

to-year. There have also been challenges in obtaining completed case investigation reports in recent years.

- The categories of risk exposures presented in this report reflect the most likely mode of transmission of HIV for a new HIV case. Although more than one risk factor or exposure may be reported through the case investigation form, individuals are assigned to a "Primary Mode of Transmission" category based upon a pre-determined hierarchy. For simplicity, the term "Risk Exposure Category" is equivalent to "Primary Mode of Transmission" in this report. Further information can be found in the Technical Notes (Appendix A).

Data Highlights for 2011

- There were 80 newly positive HIV cases reported in 2011, compared to 122 new HIV cases in 2010. In absolute numbers, this is a decrease by 42 cases compared to the previous year.
- It should be noted that 14 cases reported that they had been previously tested and diagnosed outside of Manitoba; however this was the first time being identified as a case within Manitoba.
- In 2011, 61% of all cases (n=49 cases) were male and 39% were female (n=31 cases).
- The majority (70%) of new HIV cases reported residence in the Winnipeg RHA at the time of testing and diagnosis. The remainder reported residence in regions outside of Winnipeg RHA.
- The three main Ethnicity categories reported by cases were: Aboriginal (this includes First Nations, Inuit and Métis), accounting for 35%; Caucasian, 20%, and African/ African-Canadian, 18%. It should be noted that 20% of new cases did not report on ethnicity in 2011.
- The three main Risk Exposure Categories (Primary Mode of Transmission) reported in 2011 were: Heterosexual contact (which accounted for 38% of cases), Men who have sex with men (16%) and Endemic (13%). It should be noted that 28% of new cases did not report a risk factor or exposure.
- There were two (2) new AIDS cases reported in 2011 and three (3) deaths among AIDS cases reported.

Context within Canada:

- The number of new HIV cases may not be a reflection of the true number of new HIV infections per year (i.e. incidence) in the Manitoba population. Many persons are unaware of their HIV status and therefore go undetected and unreported. The Public Health Agency of Canada (PHAC) estimates that in 2011, approximately, 71,300 persons were living with HIV in Canada; approximately 25% of persons are unaware of their HIV status.[1]
- At the end of 2011, it was estimated that 2,100 persons in Manitoba were living with HIV (note this is an estimate of HIV prevalence).[2] More PHAC HIV estimates information can be found in Appendix E.

How does Manitoba compare?

- At the end of 2011, Manitoba had the third highest reported rate of newly positive HIV adults (15 years of age and older) among the provinces and territories. However in terms of absolute numbers, cases from Manitoba accounted for 3.7% of newly positive cases in Canada that year.

Source: Public Health Agency of Canada. HIV and AIDS in Canada. Surveillance Report to December 31, 2011 Surveillance and Risk Assessment Division, Centre for Communicable Diseases and Infection Control, Public Health Agency of Canada, 2012.

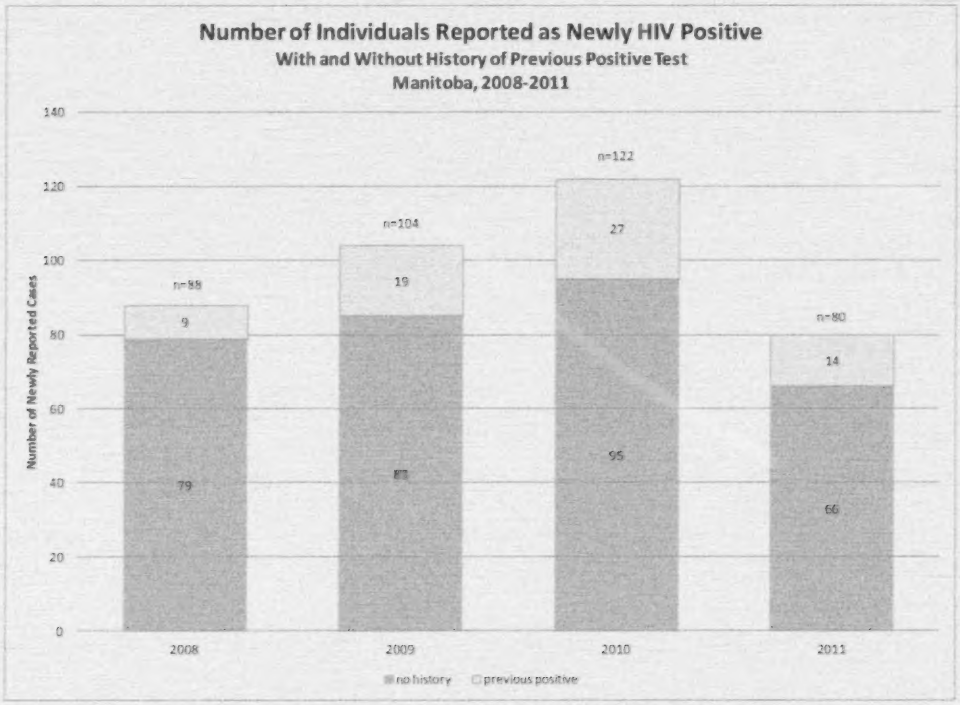
[1] Public Health Agency of Canada. Centre for Communicable Disease and Infection Control. *Summary: Estimates of HIV Prevalence and Incidence in Canada, 2011*. Released on November 21, 2012.

[2] HIV Prevalence estimates for Manitoba provided by the Public Health Agency of Canada. Centre for Communicable Disease and Infection Control, November, 2012.

Number of New HIV Cases

Between January 1, 2011 and December 31, 2011, there were 80 new cases of HIV reported in Manitoba based on laboratory-positive HIV antibody test; this is comprised of 49 male cases and 31 female cases. All positive HIV antibody tests that were reported to the Manitoba Health Public Health Surveillance System as new cases (i.e. not found in the system previously) are included in this annual total (see Appendix A for further information about reporting of HIV in Manitoba), therefore these cases are considered *new to the Manitoba surveillance system*. It should be noted that 14 of the 80 newly reported HIV cases indicated that they had tested positive for HIV previously in another province or country outside of Manitoba (grey-shaded portion of the bar, Figure 1).

Figure 1: Annual Number of Newly Reported Cases of HIV by Positive HIV Antibody Test, Manitoba, 2008-2011[3]



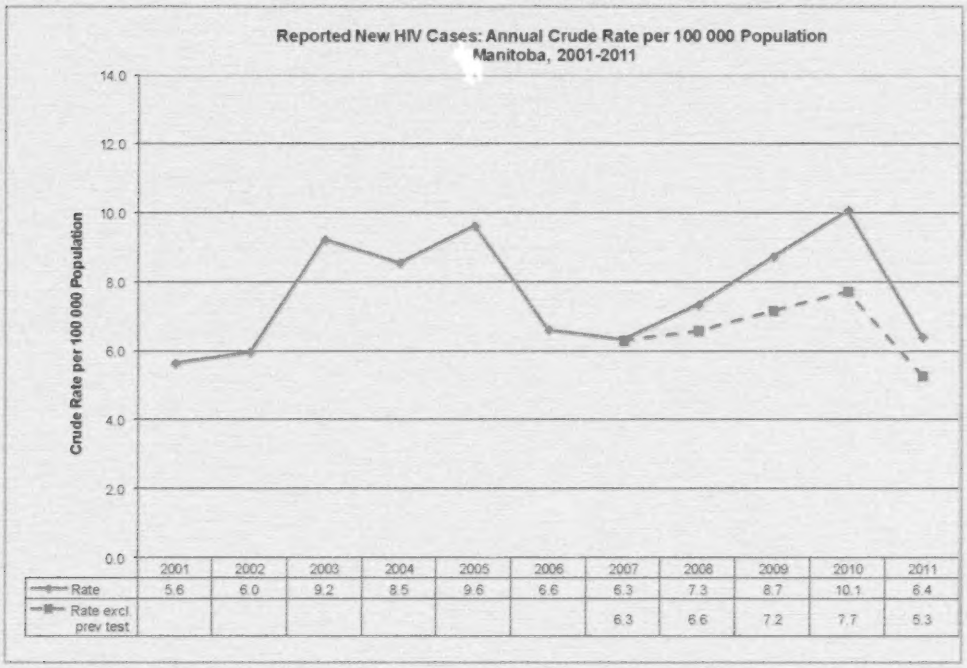
[3] It should be noted that detailed information about previous testers was not available before 2007.

Rate of Newly Positive Cases

At 6.4 new HIV cases per 100 000 population, the crude rate for 2011 is lower than the previous year's reported rate (10.2 per 100 000 in 2010) and also lower than the ten-year (average) crude rate reported for 2001-2010 (7.8 per 100 000). Over the previous ten years, the crude rates range from a low of 5.6 per 100 000 population in 2001 to a high of 10.1 per 100 000 in 2010.

For comparison, the crude rates were calculated with and without those cases that were known to have previously tested positive removed, shown in red (Fig 2). Note that this information was only consistently available for the year 2007 onwards when the case reporting form changed. Figure 2 illustrates the re-calculated crude rates for 2007-2011 (red broken line).

Figure 2: Annual Crude Rate of New HIV Cases, Manitoba, 2001-2011



	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Rate	5.6	6.0	9.2	8.5	9.6	6.6	6.3	7.3	8.7	10.1	6.4
Rate excl. prev test							6.3	6.6	7.2	7.7	5.3

Age-Sex Distribution of HIV Cases

The following figure (Figure 3) presents the for age and sex distribution for newly reported HIV cases in 2011 (n=80 cases). The 30-39 year age group has the highest number of reported new cases, for both males and females; this is consistent with that reported in previous years.

Figure 3: Number of Newly Reported HIV Cases by Age and Sex, Manitoba, 2011

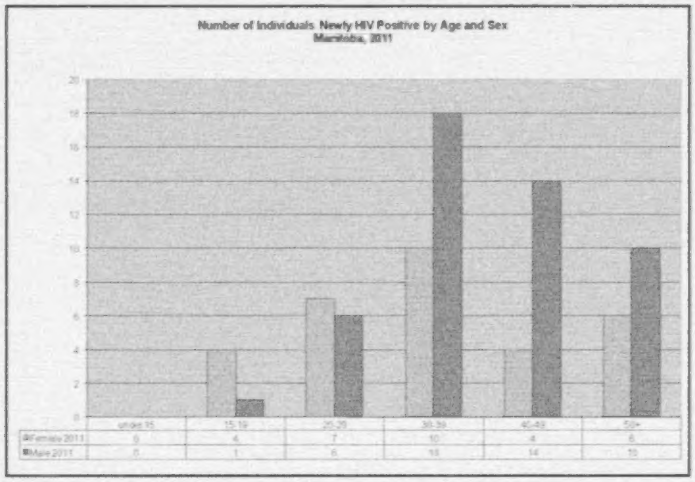
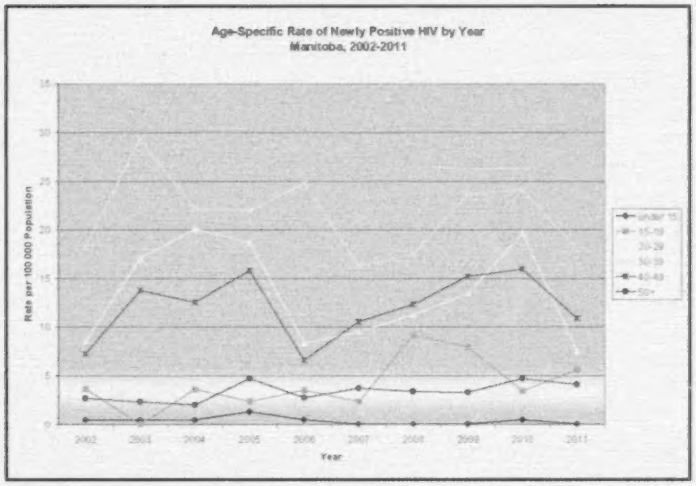


Figure 4: Age-specific Rates for Newly Reported HIV Cases, Manitoba, 2002-2011

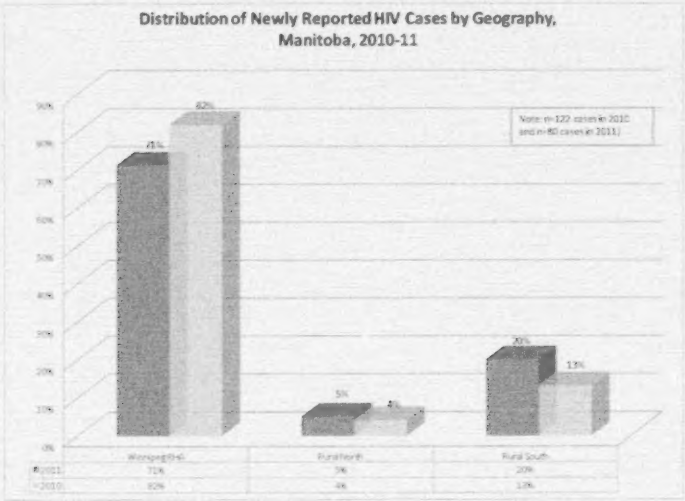


Historically, the highest rates of newly reported HIV cases were found in the 30-39 year age group, followed by the 20-29 and 40-49 year age group. Of note, is the increase in rate for the 15-19 year age group in 2008; however in 2010 the rate in this group appears to have stabilized.

Geographic Region of Residence

In 2011, as in previous years, the majority of new HIV cases were residents of the Winnipeg RHA at the time of testing (57 of the 80 cases, or 71%). The apparent change in rural distribution should be regarded with caution as the absolute number ofcases for the province shifted between 2010 and 2011 (Figure 5).[4]

Figure 5: Distribution of New HIV Cases by Geography
Manitoba, 2010-2011



Notes: Geographies were combined to provide stability in terms of numbers of cases used for calcualting crude rates. The small percentage of out-of-province residents is not shown in this figure (accounts for approximately 1% of the total).

Rural North Geography included: Burntwood. Churchill, NorMan and North Eastman RHAs.
Rural South Geography inlcuded: Assiniboine, Brandon, Central, Interlake, Parkland and South Eastman RHAs.

In future editions of this report, the newer regional health authority geographies will be utilized, however for 2011, the geographies as they existed in this period were used.

A detailed data table with RHA-specific information is provided in Appendix C.

[4] Note: the crude rates for these rural geographies are somewhat stable between the two years.

Self-Reported Ethnicity

In 2011, 35% of the 80 new HIV cases self-reported ethnicity as Aboriginal; this includes First Nations, Inuit, and Métis.. Twenty-eight per cent (20%) of new HIV cases reported Caucasian and 18% African/African-Canadian (this includes Haitian and other Caribbean) ethnicities. However it is also important to note that 20% of new cases did not report ethnicity on the case report form. Non-response to questions about ethnicity can vary from year-to-year, therefore this data should be interpreted with caution.

Figure 7: Distribution of Self-Reported Ethnicity Categories among Female Cases, Manitoba 2007-2011

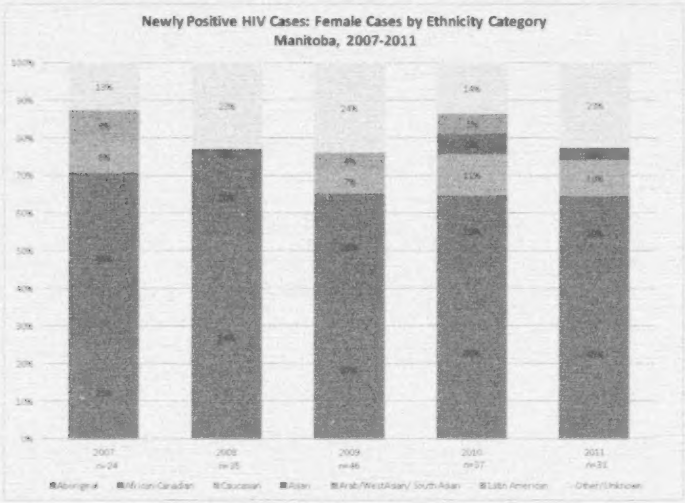
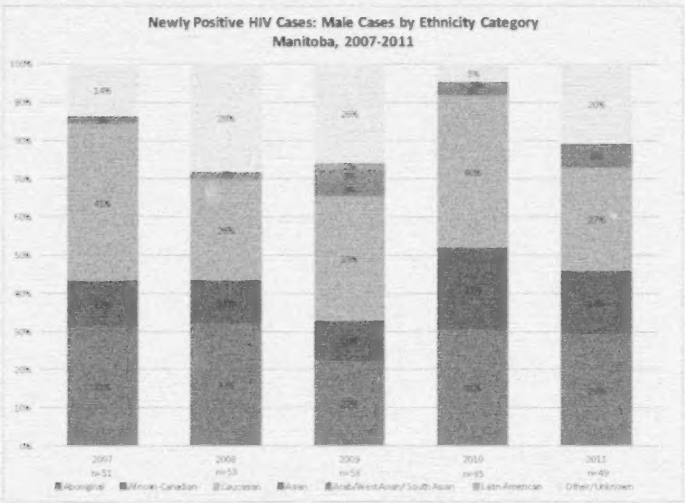


Figure 8: Distribution of Self-Reported Ethnicity Categories among Male Cases, Manitoba 2007-2011



Among female cases (Figure7), 45% reported Aboriginal ethnicity followed by 19% African-Canadian; while among male cases (Figure 8), 29% reported Aboriginal ethnicity followed by 27% Caucasian. Additional data tables can be found in Appendix C.

Ethnicity data should be interpreted with caution particularly with comparisons to previous years due to changes in the proportion of unknown or missing ethnicity information. Missing information creates a data limitation and it is difficult to determine to interpret trends or changes in ethnicity data.

Risk Exposure Categories

In 2011, Heterosexual Contact was the predominant primary exposure category among female HIV cases, reported by 45% of female cases (i.e. 14 of 31 female cases); this is followed by the Endemic category accounting for 22% (i.e. 5 of 31 female cases) and IDU with 8% (i.e. 3 of 31 female cases). Non-response to questions about risk exposure categories can vary from year-to-year, therefore this data should be interpreted with caution.

Figure 9: Female HIV Cases by Risk Exposure Category, Manitoba, 2007-2011

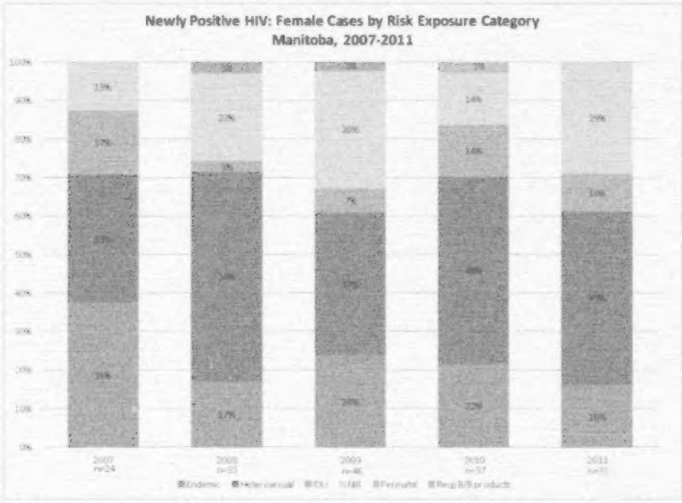
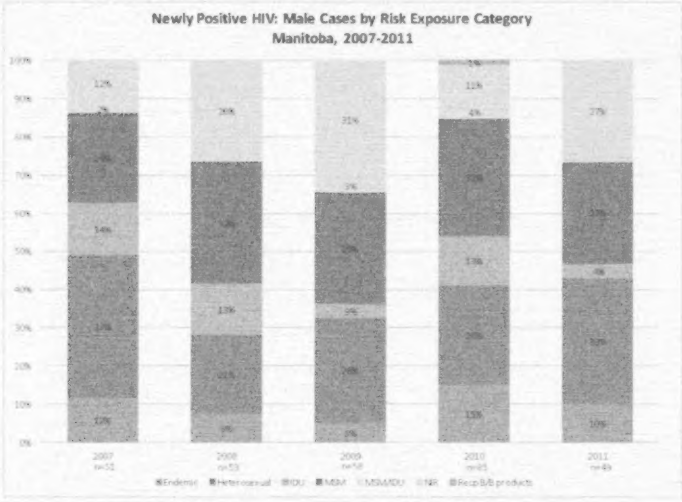


Figure 10: Male HIV Cases by Risk Exposure Category, Manitoba, 2007-2011



Risk Exposure Categories: Male HIV Cases

In 2011, Heterosexual contact was the predominant primary risk exposure category accounting for 33% of male cases (i.e.16 of 49 male cases); this is followed by MSM (without evidence of IDU), 27% (i.e. 13 of 49 male cases). Endemic (being born in a country where HIV is endemic—also see Appendix A) as a risk exposure category, accounted for 5 cases or 10%.

There is a notable proportion of male cases who reported No Identifiable Risk Factor (NIR), accounting for 27% of cases thus making it difficult to interpret trends in risk factors for transmission and acquisition of HIV. Similarly, there was also a notable proportion of female cases (29%) with NIR reported as well (typically, no risk factor information was collected from these cases). Missing information creates a data limitation and therefore it is difficult to determine or interpret trends/changes in risk factors for transmission and acquisition of HIV.

Data tables presented in Appendix C.

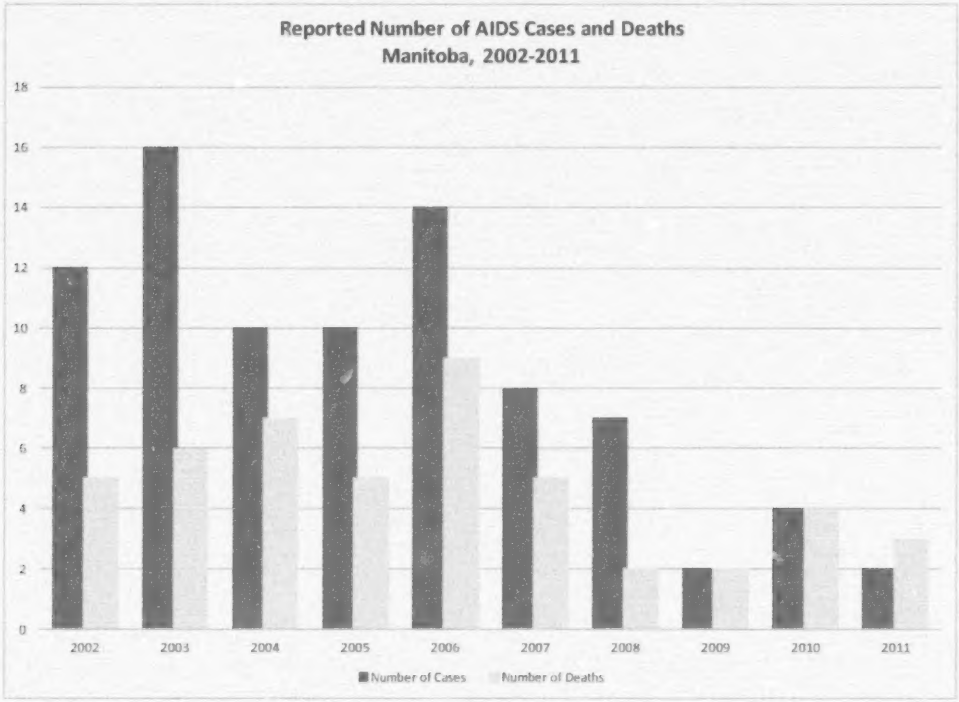
AIDS Cases –Reported To December 31, 2011

This report describes AIDS cases based on year of diagnosis of their first AIDS defining illness and this may not be the same as the year that the case was reported to the Public Health Surveillance System (Manitoba Health).

In 2011, two (**2) new cases** with AIDS diagnosis were reported; one male and one female. The average age of these cases was 41.5years. There were also three (3) reports of deceased AIDS cases in 2011. The addition of these case reports brings the total number of AIDS cases to **286** since 1985. Seventy-two percent (72%) of the 286 individuals reported with AIDS have died; however, delays in reporting of both cases and deaths make it difficult to determine the actual mortality rates.

There is variability in the number of reported AIDS cases over the previous ten years. The largest number of cases was reported in 2003, with 16 cases, this was followed by a decrease in subsequent years. Since 2007, there has been an overall decrease in the number of reported cases.

Figure 11: Number of Reported AIDS Cases, Manitoba, 2002-2011



Detailed data tables can be found in Appendix D.

APPENDIX A

Technical Notes

Reporting of HIV and AIDS in Manitoba

All confirmatory HIV antibody testing in Manitoba is carried out at Cadham Provincial Laboratory (CPL). Positive HIV antibody test results are subsequently reported to the Chief Provincial Public Health Officer as required by the *Reporting of Diseases and Conditions Regulations, Public Health Act*. Upon receipt of this lab report, the Public Health Surveillance Unit (at Manitoba Health) will send the *HIV Case Investigation Form for Nominal & Non-Nominal Positive Cases (see Appendix B)* to the ordering healthcare provider for completion and verification of a new or existing case. However, there have been delays in the completion of and return of this form. Consequently, all HIV positive test results are considered new cases unless otherwise advised by the appropriate health care professional.

The expansion of HIV antibody testing occurred on January 1, 2007 and November 1, 2007 with the introduction of nominal (the option of testing under name) and anonymous testing, respectively, in addition to the existing non-nominal testing[5] option. More information describing the three testing options can be found in the Communicable Disease Management Protocol for HIV/AIDS (http://www.gov.mb.ca/health/publichealth/cdc/protocol/index.html).

It should be noted that nominal testing has steadily increased since its introduction and in 2011, most HIV tests were done under nominal testing. However, as it is also possible for individuals to test in the past using a non-nominal code and to have a subsequent test using different codes or by name, the public health surveillance system has experienced challenges in identifying clients who have had repeat tests. As a result there are concerns with duplicate cases being included as new cases.

AIDS cases and deaths are also reportable by physicians. New AIDS cases and deaths are reported to the Chief Provincial Public Health Officer as required by the *Reporting of Diseases and Conditions Regulations, Public Health Act*. The national *HIV/AIDS Case Report Form* is used in Manitoba for this purpose.

Twice a year, provincial HIV and AIDS case data is reported to the Centre for Communicable Disease and Infection Control, Public Health Agency of Canada for inclusion within the national surveillance report, *HIV and AIDS in Canada*. The variations seen from previous provincial and national reports with respect to the number of HIV and AIDS cases and deaths may be accounted for by delays in reporting as well as continuous update of information in the Manitoba Health databases. The dataset used in this report was reported to PHAC in February, 2012.

[5] Under non-nominal testing, only the person ordering the test knows the identity of the person tested and is able to link the result to that person's health care record. So name, address and other personal identifiers are not provided to the laboratory or the public health surveillance system unless consent to share this information is provided (also see Public Health Act (Section 9(4)) for reporting of HIV cases tested under code.)

Risk Exposure Categories (Primary Mode of Transmission)

The categories of risk exposures presented in this report reflect the most likely mode of transmission of HIV for a new HIV case. Although more than one risk factor or exposure may be reported through the case investigation form, individuals are assigned to a "Primary Mode of Transmission" category based upon a hierarchy, which has been used in production of this statistical report since 2002 (Figure 8). This hierarchy groups cases with similar risk exposures, however, if more than one risk factor is reported, the hierarchy assigns cases based on which factor is most likely to have been the mode of transmission of the virus. The hierarchy used by Manitoba Health is similar (but not identical) to that used by the Public Health Agency of Canada. For simplicity, the term Risk Exposure Category is equivalent to "Primary Mode of Transmission" in this report. Note that the abbreviations used are defined in Table A3

Table A1: Manitoba Primary Mode of Transmission Hierarchy[6]

Males	Females
1. MSM/IDU	1. IDU
2. MSM	2. Endemic
3. IDU	3. Recipient of Blood/ Blood Products prior to 1985
4. Endemic	4. Heterosexual
5. Recipient of Blood/ Blood Products prior to 1985	5. Occupational
6. Heterosexual Contact	6. Perinatal
7. Occupational	7. No identifiable Risk (NIR)
8. Perinatal	
9. No identifiable Risk (NIR)	

It should be noted that : MSM/IDU includes cases with risk factors reported as men who have had sex with men (MSM) and injection drug use (IDU). The Endemic category includes the following risk factors: birth in an HIV-endemic country, sexual contact with a person from an HIV endemic country, and Injection Drug Use (IDU) within an HIV-endemic country. No identifiable risk (NIR) is the category assigned to a case when no risk factor information is available from the case report form (including when the case report form was not completed).

Challenges in obtaining completed case reports have been noted in recent years. Therefore, risk exposure category information presented recent years should be interpreted with some caution particularly with comparisons to previous years due to the varying degrees of incomplete risk factor information for this period. Missing information creates a data limitation and it is difficult to determine if the distribution of risk exposure categories (in terms of percentages of total number of cases) shown in the most recent dataset reflect true changes.

[6] Definitions of Primary Mode of Transmission categories and list of abbreviations are provided in Appendix A.

Table A2: Definitions Related to Risk Exposure Categories

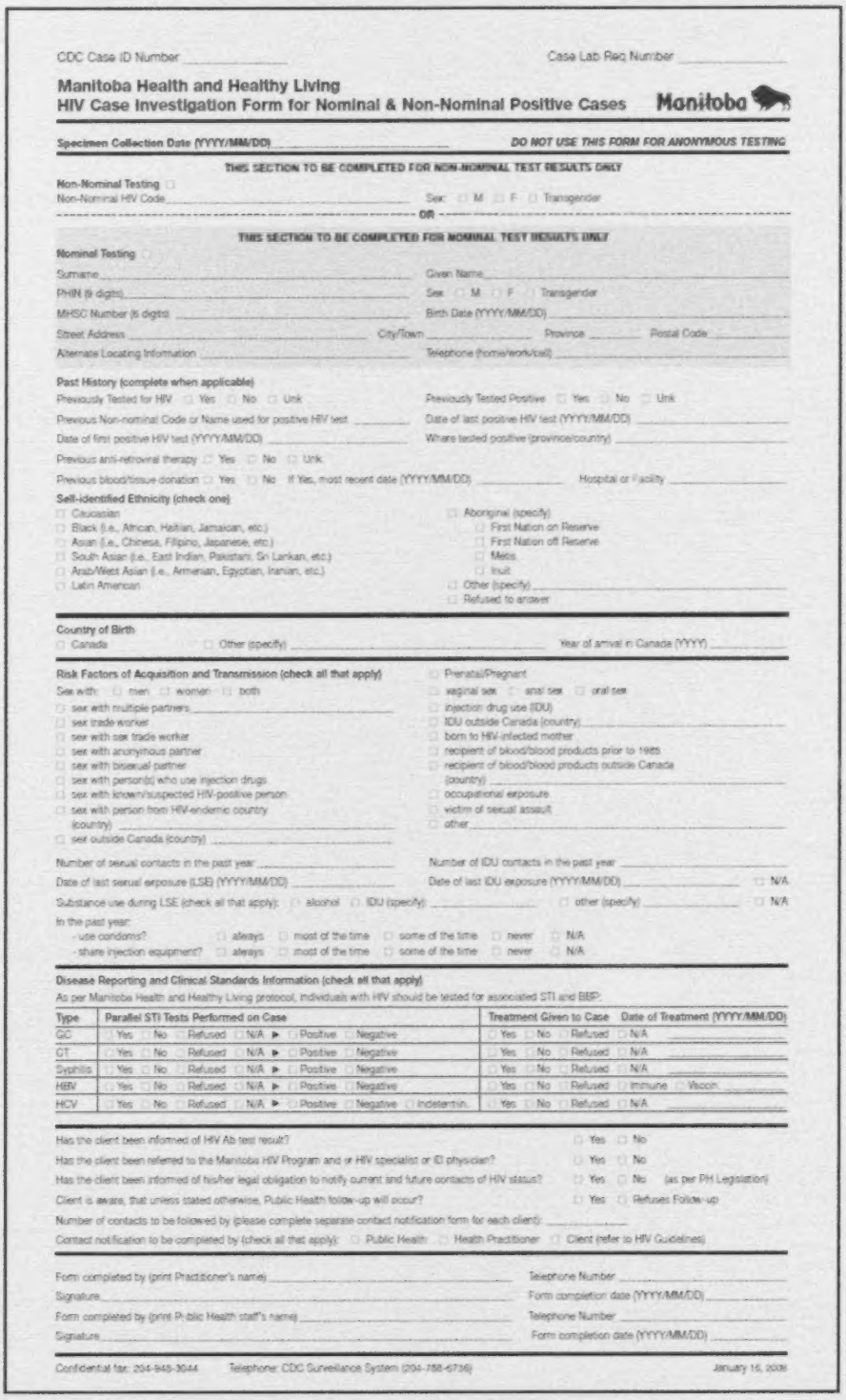
Term	Definitions
Endemic	Includes persons originating from or having traveled from or resided in an HIV-endemic country. An HIV-Endemic country is defined as a country with "an adult prevalence (ages 15-49 years) of HIV is 1.0% or greater and one of the following: 50% or more of HIV cases attributed to heterosexual transmission; a male to female ratio of 2:1 or less; or HIV prevalence greater than or equal to 2% among women receiving prenatal care." Source: Public Health Agency Canada. *HIV and AIDS in Canada. Surveillance Report to December 31, 2010.* Surveillance and Risk Assessment Division, Centre for Communicable Diseases and infection Control, Public Health Agency of Canada, 2012.
Heterosexual Contact	Includes individuals reporting heterosexual activity with person(s) who is HIV positive or is at increased risk of HIV infection.
IDU	Individuals who report any Injection Drug Use.
MSM/IDU	Men who have sex with men AND indicate injection drug use (IDU).
MSM	Men who have sex with men (without report of IDU).
No Identifiable Risk	No identifiable risk (NIR) is the category assigned to a case when either no risk factor information is identified or available from the case report form, or if the case report form was not completed. Includes in the process of follow-up or lost-to-follow-up.
Perinatal	Mother-to-child transmission. Typically, this information is reported by specialist physicians directly to PHAC through the sentinel surveillance system: Canadian Perinatal Surveillance System.
Recipient of Blood/ Blood Products prior to 1985	Individual indicates that he/she received blood or blood products prior to 1985.
Occupational	Examples of occupational include: needle stick injury, exposure to blood or bodily fluids in an occupational environment.

Table A3: Abbreviations used in this report:

HIV	Human Immunodeficiency Virus
IDU	Injection drug use
MSM	Men who have sex with men
NIR	No identifiable risk
Recp B/B products	Recipient of blood or blood products prior to 1985

Appendix B

Example of the Current HIV Case Report (Investigation) Form



CDC Case ID Number _____ Case Lab Req Number _____

Manitoba Health and Healthy Living
HIV Case Investigation Form for Nominal & Non-Nominal Positive Cases Manitoba

Specimen Collection Date (YYYY/MM/DD) _____ ***DO NOT USE THIS FORM FOR ANONYMOUS TESTING***

THIS SECTION TO BE COMPLETED FOR NON-NOMINAL TEST RESULTS ONLY

Non-Nominal Testing ☐
Non-Nominal HIV Code _____ Sex: ☐ M ☐ F ☐ Transgender

OR

THIS SECTION TO BE COMPLETED FOR NOMINAL TEST RESULTS ONLY

Nominal Testing ☐
Surname _____ Given Name _____
PHIN (9 digits) _____ Sex ☐ M ☐ F ☐ Transgender
MHSC Number (6 digits) _____ Birth Date (YYYY/MM/DD) _____
Street Address _____ City/Town _____ Province _____ Postal Code _____
Alternate Locating Information _____ Telephone (home/work/cell) _____

Past History (complete when applicable)
Previously Tested for HIV ☐ Yes ☐ No ☐ Unk Previously Tested Positive ☐ Yes ☐ No ☐ Unk
Previous Non-nominal Code or Name used for positive HIV test _____ Date of last positive HIV test (YYYY/MM/DD) _____
Date of first positive HIV test (YYYY/MM/DD) _____ Where tested positive (province/country) _____
Previous anti-retroviral therapy ☐ Yes ☐ No ☐ Unk
Previous blood/tissue donation ☐ Yes ☐ No If Yes, most recent date (YYYY/MM/DD) _____ Hospital or Facility _____

Self-identified Ethnicity (check one)
☐ Caucasian
☐ Black (i.e., African, Haitian, Jamaican, etc.)
☐ Asian (i.e., Chinese, Filipino, Japanese, etc.)
☐ South Asian (i.e., East Indian, Pakistani, Sri Lankan, etc.)
☐ Arab/West Asian (i.e., Armenian, Egyptian, Iranian, etc.)
☐ Latin American
☐ Aboriginal (specify)
  ☐ First Nation on Reserve
  ☐ First Nation off Reserve
  ☐ Metis
  ☐ Inuit
☐ Other (specify) _____
☐ Refused to answer

Country of Birth
☐ Canada ☐ Other (specify) _____ Year of arrival in Canada (YYYY) _____

Risk Factors of Acquisition and Transmission (check all that apply)
Sex with: ☐ men ☐ women ☐ both
☐ sex with multiple partners _____
☐ sex trade worker
☐ sex with sex trade worker
☐ sex with anonymous partner
☐ sex with bisexual partner
☐ sex with person(s) who use injection drugs
☐ sex with known/suspected HIV-positive person
☐ sex with person from HIV-endemic country (country) _____
☐ sex outside Canada (country) _____
☐ Prenatal/Pregnant
☐ vaginal sex ☐ anal sex ☐ oral sex
☐ injection drug use (IDU)
☐ IDU outside Canada (country) _____
☐ born to HIV-infected mother
☐ recipient of blood/blood products prior to 1985
☐ recipient of blood/blood products outside Canada (country) _____
☐ occupational exposure
☐ victim of sexual assault
☐ other _____

Number of sexual contacts in the past year _____ Number of IDU contacts in the past year _____
Date of last sexual exposure (LSE) (YYYY/MM/DD) _____ Date of last IDU exposure (YYYY/MM/DD) _____ ☐ N/A
Substance use during LSE (check all that apply): ☐ alcohol ☐ IDU (specify) _____ ☐ other (specify) _____ ☐ N/A
In the past year:
- use condoms? ☐ always ☐ most of the time ☐ some of the time ☐ never ☐ N/A
- share injection equipment? ☐ always ☐ most of the time ☐ some of the time ☐ never ☐ N/A

Disease Reporting and Clinical Standards Information (check all that apply)
As per Manitoba Health and Healthy Living protocol, individuals with HIV should be tested for associated STI and BBP.

Type	Parallel STI Tests Performed on Case	Treatment Given to Case	Date of Treatment (YYYY/MM/DD)
GC	☐ Yes ☐ No ☐ Refused ☐ N/A ▶ ☐ Positive ☐ Negative	☐ Yes ☐ No ☐ Refused ☐ N/A	_____
CT	☐ Yes ☐ No ☐ Refused ☐ N/A ▶ ☐ Positive ☐ Negative	☐ Yes ☐ No ☐ Refused ☐ N/A	_____
Syphilis	☐ Yes ☐ No ☐ Refused ☐ N/A ▶ ☐ Positive ☐ Negative	☐ Yes ☐ No ☐ Refused ☐ N/A	_____
HBV	☐ Yes ☐ No ☐ Refused ☐ N/A ▶ ☐ Positive ☐ Negative	☐ Yes ☐ No ☐ Refused ☐ Immune ☐ Vaccin.	_____
HCV	☐ Yes ☐ No ☐ Refused ☐ N/A ▶ ☐ Positive ☐ Negative ☐ Indetermin.	☐ Yes ☐ No ☐ Refused ☐ N/A	_____

Has the client been informed of HIV Ab test result? ☐ Yes ☐ No
Has the client been referred to the Manitoba HIV Program and or HIV specialist or ID physician? ☐ Yes ☐ No
Has the client been informed of his/her legal obligation to notify current and future contacts of HIV status? ☐ Yes ☐ No (as per PH Legislation)
Client is aware, that unless stated otherwise, Public Health follow-up will occur? ☐ Yes ☐ Refuses Follow-up
Number of contacts to be followed by (please complete separate contact notification form for each client): _____
Contact notification to be completed by (check all that apply): ☐ Public Health ☐ Health Practitioner ☐ Client (refer to HIV Guidelines)

Form completed by (print Practitioner's name) _____ Telephone Number _____
Signature _____ Form completion date (YYYY/MM/DD) _____
Form completed by (print Public Health staff's name) _____ Telephone Number _____
Signature _____ Form completion date (YYYY/MM/DD) _____

Confidential fax: 204-948-3044 Telephone: CDC Surveillance System (204-788-6736) January 16, 2009

Appendix B: Page 2 of HIV Case Investigation Form

Manitoba Health and Healthy Living HIV Case Investigation Form
Instructions and Public Health Notes

Nominal testing or non-nominal testing	Ensure the correct area is used. Nominal area is shaded.
Point of Care HIV testing	If standardized parallel or confirmatory HIV testing is not completed, then POCT reactive test results require the completion of a POCT Rapid Test Result report to the CDC Branch as well as appropriate HIV follow-up and investigation
Non-Nominal Code	If the client has tested non-nominally, do not complete the name, address, or PHIN information
Address	If the client has tested nominally, please ensure that client's primary permanent address is completed; if it differs from that provided on the lab report, provincial records will be updated.
Past History	Is necessary to allow previous test results to be linked with current test (as per PHIA). This section is important for the identification of repeat testers, interprovincial follow-up (if tested previously in another province), and possible identification of newly acquired infection. A case of new HIV infection is defined as a positive test with a unique code that has not been previously associated with a positive test in Manitoba.
Ethnicity	Clients should self-identify their ethnicity (and they have the right to refuse to answer). Aboriginal-specific categories have been requested by a number of Aboriginal communities and service providers.
Risk Factors	This information is valuable epidemiologic information used to inform programme and policy. Please encourage accurate reporting by clients for all activities that they have ever engaged in. Immigration from an HIV endemic country is not considered a risk factor, but is captured under Country of Birth. Immigrants from an HIV endemic country should still identify risk factors.
Informing	Questions related to the information provided to clients re: legal obligations and referral to specialist, will be used to assess adherence to provincial protocol. If not completed, provincial public health may contact you.
MB Health Follow-Up	If the client reports a sexual assault, an occupational exposure, a blood/blood product exposure, or blood/tissue donation, Manitoba Health and Healthy Living staff may contact the person who completed the form for clarification.

Region-Specific Questions for Case Management (or "Additional Questions for Case Management")

Additional locating information: _____

Treatment information: _____

Provider information: _____

Other client information: _____

Signature: _____

ONLY THE FIRST PAGE (the surveillance information) should be sent to Manitoba Health and Healthy Living:

Fax to: Manitoba Health and Healthy Living
Public Health Notifiable Disease Surveillance System
Public Health Division, Manitoba Health and Healthy Living
4th floor – 300 Carlton Street
Winnipeg, Manitoba R3B 3M9
CONFIDENTIAL FAX: 204-948-3044
Telephone: Public Health Disease Surveillance System (204-788-6736)

The health, social and legal consequences of not following through with HIV contact notification can be significant. All contacts must be notified and reported to Manitoba Health and Healthy Living; please use the Manitoba Health and Healthy Living HIV Contact Notification Form.

APPENDIX C

HIV Descriptive Data Tables

Table 1a: Number of HIV Positive Cases in Manitoba, 1985-December 31, 2011

Years	Number of Female Cases	Number of Male Cases	Total Number of Cases
1985-2001	158	753	**911**
2002	29	41	**70**
2003	39	68	**107**
2004	40	61	**101**
2005	41	74	**115**
2006	28	49	**77**
2007	24	51	**75**
2008	35	53	**88**
2009	46	58	**104**
2010	37	85	**122**
2011	31	49	**80**
Total	**508**	**1342**	**1850**

Table 1b: Number of HIV Positive Cases in Manitoba By Age Category, Sex, and Year of Diagnosis

Age Category	Sex	1985-2008	2009	2010	2011
<15	M	7	0	0	**0**
	F	10	0	1	**0**
15-19	M	18	1	1	**1**
	F	25	6	2	**4**
20-29	M	321	11	20	**6**
	F	148	11	13	**7**
30-39	M	453	16	27	**18**
	F	134	19	11	**10**
40-49	M	225	22	20	**14**
	F	48	5	8	**4**
50+	M	126	8	17	**10**
	F	29	5	2	**6**
Total	**M**	**1150**	**58**	**85**	**49**
	F	**394**	**46**	**37**	**31**

Table 2: Number of HIV Positive Cases in Manitoba
By Geographic Residence, Sex, and Year of Diagnosis

RHA	Sex	1985-2008	2009	2010	2011
Assiniboine	M	5	1	2	1
	F	1	0	0	2
Brandon	M	4	1	1	2
	F	4	1	1	2
Burntwood	M	17	2	0	1
	F	11	0	1	2
Churchill	M	0	0	0	0
	F	0	0	1	0
Central	M	46	0	3	2
	F	16	5	1	0
Interlake	M	37	1	5	3
	F	8	2	1	2
Norman	M	5	1	0	0
	F	1	0	1	0
North Eastman	M	14	2	2	0
	F	5	0	0	1
Parkland	M	5	0	1	1
	F	5	0	0	0
South Eastman	M	3	0	1	1
	F	1	0	0	0
Winnipeg	M	962	47	69	36
	F	328	38	31	21
Out-of-Province	M	23	2	1	2
	F	9	0	0	1
Unknown	M	1	1	0	0
	F	2	0	0	0
Total	**M**	**1122**	**58**	**85**	**49**
	F	**391**	**46**	**37**	**31**

Note: There were 31 cases from the period 1985-2000 that could not be assigned to current RHA geographic areas. These cases are excluded from the above table.

Table 3: Number of HIV Positive Cases in Manitoba
By Self-Reported Ethnicity and Year of Diagnosis

Ethnic Category	1999-2008	2009	2010	2011
Aboriginal	286	30	43	28
Caucasian	237	22	38	16
African/ African-Canadian	174	19	25	14
Asian	21	2	4	4
Latin American	8	3	0	0
South Asian/ Arab/ West Asian	8	2	3	0
Other	4	0	1	1
Unknown/Missing/ Refused	806	26	8	17
Total	1544	104	122	80

Note: Collection of Ethnicity data began in 1999.

Table 4: Number of HIV Positive Cases in Manitoba
By Risk Exposure Category (Primary Mode of Transmission)
and Year of Diagnosis

Risk Exposure Category	Sex	1985-2008	2009	2010	2011
Endemic	M	89	3	13	5
	F	105	11	8	5
Heterosexual	M	215	16	22	16
	F	146	17	18	14
IDU	M	150	2	11	2
	F	93	3	5	3
MSM	M	524	17	26	13
MSM/IDU	M	56	2	3	0
NIR	M	82	18	9	13
	F	36	14	5	9
Occupational	M	2	0	0	0
	F	0	0	0	0
Perinatal	M	2	0	0	0
	F	1	0	1	0
Recp B/B products	M	30	0	1	0
	F	13	1	0	0
Total	**M**	1150	58	85	49
	F	394	46	37	31

Note: Abbreviations are listed in Appendix A.

APPENDIX D

AIDS Descriptive Tables

Table 1: Number of Reported AIDS Cases and Deaths in Manitoba by Year of Diagnosis

Year	Number of Cases	Number of Deaths
1985-2001	201	159
2002	12	5
2003	16	6
2004	10	7
2005	10	5
2006	14	9
2007	8	5
2008	7	2
2009	2	2
2010	4	4
2011	2	3
Total	**286**	**207**

Note: This data includes only those AIDS cases and deaths of AIDS cases that have been reported to Manitoba Health. Delays in reporting may occur, and not all deaths may be reported. Please see Appendix A of this report for further reporting detail. Note that year of diagnosis is based on date of diagnosis of first AIDS-defining illness (according to the national case definition for AIDS) and may differ from date of report to Manitoba Health. It is also possible to have reported AIDS deaths for cases first diagnosed in previous years.

Table 2a: Number of Reported AIDS Cases in Manitoba among Female Cases, By Age Category and Year of Diagnosis

Females	1985-2001	2002-2006	2007-2011
under 15	1	1	0
15-19	2	0	1
20-24	1	3	2
25-29	1	5	1
30-39	6	7	2
40-49	4	6	2
50+	2	2	0
Total	**16**	**24**	**8**

Table 2b: Number of Reported AIDS Cases in Manitoba among Male Cases, By Age Category and Year of Diagnosis

Males	1985-2001	2002-2006	2007-2011
under 15	2	0	0
15-19	1	0	0
20-24	6	0	0
25-29	25	3	0
30-39	88	17	4
40-49	38	10	9
50+	25	7	2
Total	**185**	**37**	**15**

Note: Tables 2 through 5 have been aggregated into five-year groups due to small annual case counts in the past ten years.

Table 3: Number of Reported AIDS Cases in Manitoba by RHA of Residence and Year of Diagnosis

RHA	Sex	1985-2001	2002-2006	2007-2011
Assiniboine	F	0	0	0
	M	3	0	1
Brandon	F	0	0	0
	M	4	1	0
Burntwood & Churchill	F	1	2	0
	M	1	0	0
Interlake	F	0	0	0
	M	3	1	0
NorMan	F	0	0	0
	M	1	1	0
North Eastman	F	0	1	0
	M	0	0	1
Parkland	F	1	0	0
	M	3	0	0
South Eastman	F	0	0	0
	M	1	0	0
Winnipeg	F	14	21	7
	M	165	33	13
Out-of-Province and Unknown	F	0	0	1
	M	4	0	1
Total	**F**	**16**	**24**	**8**
	M	**185**	**37**	**15**

Table 4: Number of Reported AIDS Cases in Manitoba by Risk Factor Category (Primary Mode of Transmission) Among Female Cases

Females	1985-2001	2002-2006	2007-2011
Endemic	3	6	1
IDU	2	9	3
Heterosexual	8	9	4
Perinatal	1	0	0
Recp B/B products	2	0	0
Total	**16**	**24**	**8**

Table 5: Number of Reported AIDS Cases in Manitoba by Risk Factor Category (Primary Mode of Transmission) Among Male Cases

Males	1985-2001	2002-2006	2007-2011
Endemic	3	0	1
IDU	11	8	2
Heterosexual	18	12	3
MSM	127	13	7
MSM/IDU	9	1	0
NIR	2	2	2
Perinatal	1	0	0
Recp B/B products	14	1	0
Total	**185**	**37**	**15**

Abbreviations:
MSM: men who have sex with men
IDU: injection drug use
MSM/IDU: both MSM and IDU reported as risk factors
Heterosexual: includes persons reporting heterosexual activity with person(s) at risk of HIV infection
Endemic: includes persons originating from or having traveled from or resided in an HIV-endemic country
Recp B/B products: recipient of blood/blood products prior to 1985
NIR: no identified risk
Note: Data tables produced July,2012.

Appendix E

HIV Prevalence and Incidence Estimates for Manitoba, 2011

Surveillance data (such as that presented in this report) is based on individuals reported to Public Health with a newly positive HIV test. It is possible for months or years to pass (following infection) before an individual is tested and diagnosed with HIV. To assist with program planning needs, the Public Health Agency of Canada (PHAC) periodically produces estimates of HIV incidence (the number of new or incident cases) and prevalence (the number of existing cases at a given point in time). This utilizes multiple modeling and estimation methods for Canada and for the provinces.[7] The estimates for Manitoba (produced by PHAC) are presented below.

Table 1: Estimated HIV Prevalence in Manitoba, 2011[8]

	2008			2011		
Exposure category	Estimated Number of Cases	Estimated Range	Percent of Total	Estimated Number of Cases	Estimated Range	Percent of Total
MSM	420	320-520	22.7%	480	360-600	22.9%
MSM-IDU	37	20-60	2.0%	40	30-60	1.9%
IDU	330	230-430	17.9%	360	260-460	17.1%
HET (non-endemic)	646	490-800	35.0%	770	580-960	36.7%
HET (endemic)	385	280-490	20.8%	420	300-540	20.0%
Other	29	20-60	1.6%	30	20-40	1.4%
All	1847	1400-2300		2100	1600-2600	

Table 2: Estimated HIV Incidence in Manitoba, 2011[9]

	2008			2011		
Exposure category	Estimated Number of Cases	Estimated Range	Percent of Total	Estimated Number of Cases	Estimated Range	Percent of Total
MSM	28	20-40	23.1%	28	20-40	24.3%
MSM-IDU	1	<10	0.8%	2	<10	1.7%
IDU	17	5-30	14.0%	14	5-25	12.2%
HET (non-endemic)	53	40-70	43.8%	49	30-70	42.6%
HET (endemic)	22	10-35	18.2%	22	10-35	19.1%
Other	-	<10	-	-	<10	-
All	121	80-160		115	80-150	

Notes: MSM: men who have sex with men; IDU: injection drug use; Heterosexual/non-endemic: heterosexual contact with a person who is either HIV-infected or at risk for HIV, or heterosexual as the only identified risk; Heterosexual/endemic: origin from a country where HIV is endemic; Other: recipients of blood transfusion or clotting factor, perinatal and occupational transmission.

Further information about National HIV Incidence and Prevalence Estimates can be found in the Report: *Summary: Estimates of HIV Prevalence and Incidence in Canada, 2011, PHAC*, release date: November 2012.

---

[7] Source: Public Health Agency of Canada, Centre for Communicable Disease and Infection Control. *Estimates of HIV Prevalence and Incidence in Canada* http://www.phac-aspc.gc.ca/aids-sida/publication/index-eng.php

[8] Source: Public Health Agency of Canada, Centre for Communicable Disease and Infection Control. *Manitoba HIV Prevalence and Incidence Estimates used to Construct the 2011 National HIV Estimates. 2012.*

[9] Source: As noted above.

NOTES